IN THE CLAIMS:

1. (currently amended) An apparatus for controlling fixed-length ~~transmission unit~~ cells of networking traffic in a ~~switch~~ networking hardware platform, the apparatus comprising at least one bi-directional first-in-first-out (FIFO) unit, wherein each bi-directional FIFO unit comprises a first unidirectional FIFO buffer and a second unidirectional FIFO buffer, ~~wherein~~ the first and second unidirectional FIFO buffers each ~~comprise~~ to buffer cells of which the cells of networking traffic are comprised, the cells that are buffered able to be delineated in light of a bits per word programmable parameter and a words per cell programmable parameter, ~~wherein~~ the fixed length of the ~~transmission units that the fixed length transmission unit~~ cells from which said cells of networking traffic is comprised ~~of can be determined~~ being determinable from said bits per word parameter and said words per cell parameter.

2. (currently amended) The apparatus of claim 1, wherein the first and second unidirectional FIFO buffers each comprise asynchronous read and write ports.

3. (canceled)

4. (currently amended) The apparatus of claim 1 wherein the at least one bi-directional FIFO unit is: 1) configured to implement a write of at least one fixed-length ~~transmission unit~~ cell sent from an interface; and is 2) configured to implement a read of at least one fixed-length ~~transmission unit~~ cell destined to at least one asynchronous transfer mode (ATM) interface.

5. (currently amended) The apparatus of claim 1 wherein the first unidirectional FIFO buffer is configured to implement a write of at least one fixed-length ~~transmission unit~~ cell sent from an ATM interface.

6. (currently amended) The apparatus of claim 1 wherein the first unidirectional FIFO buffer is configured to implement a write of at least one fixed-length ~~transmission unit~~ cell sent from a frame relay interface.

7. (currently amended) The apparatus of claim 1 wherein the first unidirectional FIFO buffer is configured to implement a write of at least one fixed-length ~~transmission unit~~ cell sent from a voice interface.

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8. (currently amended) The apparatus of claim 1 wherein the first unidirectional FIFO buffer is configured to implement a write of at least one fixed-length ~~transmission unit~~ cell sent from a data interface.

9. (currently amended) The apparatus of claim 1 wherein the first unidirectional FIFO buffer is configured to implement a read of at least one fixed-length ~~transmission unit~~ cell destined to at least one switch, wherein the at least one switch handles fixed-length ~~transmission units~~ cells from sources having a plurality of bandwidths.

10. (currently amended) The apparatus of claim 9 wherein the at least one switch can route the at least one fixed-length ~~transmission unit~~ cell to at least one service module.

11. (currently amended) The apparatus of claim 10 wherein the at least one service module ~~is~~ can provide the at least one fixed-length ~~transmission unit~~ cell to a service subscriber using a T1, E1, T3, E3, OC3, or OC 12 port.

12. (currently amended) The apparatus of claim 1 wherein the second unidirectional FIFO buffer is configured to implement a read of at least one fixed-length ~~transmission unit~~ cell destined to an ATM interface.

13. (currently amended) The apparatus of claim 1 wherein the second unidirectional FIFO buffer is configured to implement a read of at least one fixed-length ~~transmission unit~~ cell destined to a frame relay interface.

14. (currently amended) The apparatus of claim 1 wherein the second unidirectional FIFO buffer is configured to implement a read of at least one fixed-length ~~transmission unit~~ cell destined to a voice interface.

15. (currently amended) The apparatus of claim 1 wherein the second unidirectional FIFO buffer is configured to implement a read of at least one fixed-length ~~transmission unit~~ cell destined to a data interface.

16. (currently amended) The apparatus of claim 1 wherein the second unidirectional FIFO buffer is configured to implement a write of at least one fixed-length ~~transmission unit~~ cell sent from at least one switch wherein the at least one switch handles fixed-length ~~transmission units~~ cells from sources having a plurality of bandwidths.

17. (currently amended) The apparatus of claim 16 wherein the at least one switch can route the at least one fixed-length ~~transmission unit~~ cell from a service module.

18. (currently amended) The apparatus of claim 17 wherein the service module can receive the at least one fixed-length ~~transmission unit~~ cell from a service subscriber using a T1,El, T3, E3, OC3, or OC 12 port.

19. (currently amended) The apparatus of claim 1 wherein the at least one bi-directional FIFO unit comprises a diagnostic interface, wherein the diagnostic interface supports a non destructive read of the at least one bi-directional FIFO unit while at least one fixed-length ~~transmission unit~~ cell is being written to an read from the at least one bi-directional FIFO unit.

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20. (currently amended) The apparatus of claim 1wherein the at least one fixed-length ~~transmission unit~~ cell is written to the second unidirectional FIFO buffer from the first unidirectional FIFO buffer over a first enabled diagnostic loop.

21. (currently amended) The apparatus of claim 1 wherein the at least one fixed-length ~~transmission unit~~ cell is written to the first unidirectional FIFO buffer from the second unidirectional FIFO buffer over a second enabled diagnostic loop.

22. (currently amended) The apparatus of claim 1 wherein each unidirectional FIFO buffer outputs a write port fixed-length ~~transmission unit~~ cell count, wherein a write port of each unidirectional FIFO buffer outputs a status

indicating space available in the unidirectional FIFO buffer for at least one more fixed-length ~~transmission unit~~ cell.

23. (currently amended) The apparatus of claim 22 wherein at least one master bi-directional FIFO unit is designed to ceases ~~reading~~ writing at least one fixed-length ~~transmission unit~~ cell to the first unidirectional FIFO buffer of at least one slave bi-directional FIFO unit in response to the write port fixed-length ~~transmission unit~~ cell count of the first unidirectional FIFO buffer, wherein the at least one master bi-directional FIFO unit disables at least one switch from routing at least one fixed-length ~~transmission unit~~ cell to the at least one slave bi-directional FIFO unit in response to the write port fixed-length ~~transmission unit~~ cell count, and wherein at least one switch routes the at least one fixed-length ~~transmission unit~~ cell to another of the at least one slave bi-directional FIFO units in response to thewrite port fixed-length ~~transmission unit~~ cell count of the first unidirectional FIFO buffer.

24. (currently amended) The apparatus of claim 23 wherein the at least one master bi-directional FIFO unit resumes ~~reading~~ writing the at least one fixed-length ~~transmission unit~~ cell to the second unidirectional FIFO buffer of the at least one slaved bi-directional FIFO unit in response to the write port fixed-length ~~transmission unit~~ cell count of the second unidirectional FIFO buffer, wherein the at least one master bi-directional FIFO unit enables at least one switch to route at least one fixed-length ~~transmission unit~~ cell to the at least one slave bi-directional FIFO unit in response to the write port fixed-length ~~transmission unit~~ cell count of the second unidirectional FIFO buffer.

25. (currently amended) The apparatus of claim 1 wherein each unidirectional FIFO buffer outputs a read port fixed-length ~~transmission unit~~ cell count, wherein a read port of each unidirectional FIFO buffer outputs a status indicating space available in the unidirectional FIFO buffer for at least one ~~transmission unit~~ cell.

26. (previously presented) The apparatus of claim 1 wherein write port logic of each unidirectional FIFO buffer is synchronous with a write clock.

27. (previously presented) The apparatus of claim 26 wherein the write clock operates at a frequency substantially equal to 50 megahertz.

28. (previously presented) The apparatus of claim 1 wherein read port logic of each unidirectional FIFO buffer is synchronous with a read clock.

29. (previously presented) The apparatus of claim 28 wherein the read clock operates at frequency substantially equal to 21 megahertz.

30. (previously presented) The apparatus of claim 28 wherein the read clock operates at a frequency substantially equal to 42 megahertz.

31. (currently amended) The apparatus of claim 1 wherein at least one invalid fixed-length ~~transmission unit~~ cell can be discarded from each unidirectional FIFO buffer.

32. (previously presented) The apparatus of claim 1 wherein the switch platform further comprises two switches.

33. (currently amended) The apparatus of claim 1wherein the ~~switch~~ networking hardware platform comprises at least one service module and at least one fixed-length ~~transmission unit~~ cell bus controller, wherein the at least one fixed-length ~~transmission unit~~ cell bus controller is coupled between the at least one service module and a least one switch, wherein the at least one service module comprises at least one slave bi-directional FIFO unit, and wherein the at least one fixed-length ~~transmission unit~~ cell bus controller comprises at least one master bi-directional FIFO unit.

34. (currently amended) A networking ~~switch~~ hardware platform comprising:

at least one service module;

at least one fixed length ~~transmission unit~~ cell bus controller coupled between the at least one service module and at least one switch;

at least one bi-directional first-in-first-out (FIFO) unit located in the at least one fixed-length ~~transmission unit~~ cell bus controller, wherein each bi-directional FIFO unit comprises a first and a second unidirectional FIFO buffer each capable of discarding an invalid fixed length ~~transmission unit~~ cell, ~~wherein~~ the first and second unidirectional FIFO buffers to buffer cells, the cells that are buffered able to be delineated in light of ~~each comprise~~ a bits per word programmable parameter and a words per cell programmable parameter, ~~wherein a~~ the fixed length of the ~~transmission units that a fixed length transmission unit flow is comprised of can be determined~~ cells being determinable from the bits per word parameter and the words per cell parameter; and

at least one diagnostic interface, wherein the at least one diagnostic interface supports a non-destructive read of the at least one bi-directional FIFO unit

~~while at least one fixed-length transmission unit is being written to and read from the at least one bi-directional FIFO unit~~.

35. (currently amended) The network ~~switch~~ hardware platform of claim 34 wherein the at least one bi-directional FIFO unit is configured to write at least one fixed-length ~~transmission unit~~ cell sent from an interface and read at least one fixed-length ~~transmission unit~~ cell to be sent to ~~an~~ the interface, wherein the interface is an asynchronous transfer mode (ATM) interface, a frame relay interface, a voice interface or a data interface.

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36. (currently amended) The network ~~switch~~ hardware platform of claim 34 wherein ~~the~~ at least one fixed-length ~~transmission unit~~ cell ~~is~~ can be written to the second unidirectional FIFO buffer from the first unidirectional FIFO buffer over a first enabled diagnostic loop, and wherein at least one fixed-length transmission unit ~~is~~ can be written to the first unidirectional FIFO buffer from the second unidirectional FIFO buffer over a second enabled diagnostic loop.

37. (currently amended) The network ~~switch~~ hardware platform of claim 34 wherein each unidirectional FIFO buffer outputs a write port fixed-length ~~transmission unit~~ cell count, wherein a write port of each unidirectional FIFO buffer outputs a status indication of space available in the unidirectional FIFO buffer for at least one more fixed-length ~~transmission unit~~ cell~~, wherein each unidirectional FIFO buffer outputs a read port fixed-length transmission unit count, wherein a read port of each unidirectional FIFO buffer outputs a status indicating space available in the unidirectional FIFO buffer for at least one more fixed-length transmission unit~~.

38. (currently amended) The network ~~switch~~ hardware platform of claim 34 wherein the first and second unidirectional FIFO buffers each comprise asynchronous read and write ports, wherein the write port logic of each unidirectional FIFO buffer is synchronous with a write clock, and wherein the read port logic of each unidirectional FIFO buffer is synchronous with a read clock.

39. (canceled)

40. (currently amended) The network ~~switch~~ hardware platform of claim 34 wherein the at least on bi-directional FIFO unit is configured to read at least one fixed-length ~~transmission unit~~ cell to be sent to the at least one switch and write at least one fixed-length transmission unit that has been sent from the at least one switch, wherein the switch handles fixed-length ~~transmission units~~ cells from sources having a plurality of bandwidths.

41. (currently amended) The network ~~switch~~ hardware platform of claim 34 wherein the at least one service module can receive at least one fixed-length ~~transmission unit~~ cell from and provide at least one fixed-length ~~transmission unit~~ cell to at least one service subscriber using any one of a TI, EI, T3, E3, OC3, or OC 12 port.

42. (currently amended) A method for controlling fixed-length ~~transmission unit~~ cells of networking traffic in a ~~switch~~ networking hardware platform, the method comprising ~~the step of~~ transferring at least one fixed-length ~~transmission unit~~ cell ~~among a plurality of ports having a plurality of bandwidths using~~ into a bi-directional first-in-first-out (FIFO) unit, wherein the bi-directional FIFO unit comprises a first unidirectional FIFO buffer and second unidirectional FIFO buffer, one of the

unidirectional FIFOs to buffer egress cells, another of the unidirectional FIFOs to buffer ingress cells, the transferring further comprising reading or writing a cell from or to ~~wherein~~ the first ~~and second~~ unidirectional FIFO, the cell read from or written to the first unidirectional buffer able to be delineated from other cells that are buffered within the first unidirectional buffer based upon of a ~~buffers each comprise a~~ bits per word programmable parameter and a words per cell programmable parameter, ~~wherein~~ the fixed-length of the ~~transmission units~~ cells that the ~~fixed length transmission unit~~ networking traffic is comprised of ~~can be determined~~ being determinable from the bits per word parameter and the words per cell parameter.

43. (currently amended) The method of claim 42 further comprising ~~the step of~~ programming the word size of each of the first and second unidirectional FIFO buffers.

44. (currently amended) The method of claim 43 wherein the ~~step of~~ transferring further comprises ~~the steps of~~:

synchronously writing the ~~at least one~~ fixed-length ~~transmission unit~~ cell from at least one port to the first unidirectional FIFO buffer; and

synchronously reading the ~~at least one~~ fixed-length ~~transmission unit~~ cell from the first unidirectional FIFO buffer and sending the fixed-length cell to ~~at least one~~ a switch, ~~wherein~~ the reading ~~is~~ being asynchronous with respect to the writing.

45. (currently amended) The method of claim 42 wherein the ~~step of~~ transferring further comprises ~~the steps of~~:

synchronously writing the ~~at least one~~ fixed-length ~~transmission~~

~~unit~~ cell en route from ~~at least one~~ a switch to the ~~second~~ first unidirectional FIFO buffer; and

synchronously reading the ~~at least one~~ fixed-length ~~transmission unit~~ cell from the ~~second~~ first unidirectional FIFO buffer and sending it to ~~the~~ at least one port, wherein the reading is asynchronous with respect to the writing.

46. (currently amended) The method of claim 42 further comprising ~~steps of~~:

discarding at least one invalid fixed-length ~~transmission unit~~ cell from each unidirectional FIFO buffer; and

executing a non-destructive read of the at least one bi-directional FIFO unit while at least one fixed-length ~~transmission unit~~ cell is being written to and read from the at least one bi-directional FIFO.

47. (currently amended) The method of claim 42 further comprising ~~the steps of~~:

writing at least one fixed-length ~~transmission unit~~ cell to the second unidirectional FIFO buffer from the first unidirectional FIFO buffer using a first enabled diagnostic loop~~; and~~

~~writing at least one fixed-length transmission unitto the first unidirectional FIFO buffer from the second unidirectional FIFO buffer over a diagnostic loop~~.

48. (currently amended) The method of claim 42 further comprising ~~steps of~~:

outputting a write port fixed-length ~~transmission unit~~ cell count from each unidirectional FIFO buffer;

outputting a read port fixed-length ~~transmission unit~~ cell count from each unidirectional FIFO buffer; and

outputting from a read port of each unidirectional FIFO buffer a status indicating space available in the unidirectional FIFO buffer for at least one more fixed-length ~~transmission unit~~ cell.

49. (currently amended) The method of claim 42 wherein the plurality of ports comprise at least one asynchronous transfer mode (ATM) interface, at least one frame relay interface, at least one voice interface, at least one data interface, at least one network switch interface, at least one OC12 interface, ~~and~~ or at least one OC3 interface.

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50. (currently amended) An apparatus, comprising:

a bus master that controls:

1) a first bus that transports information from said bus master to one or more service modules that are coupled to said first bus;

2) a second bus that transports information from said one or more service modules to said bus master, said one or more service modules also coupled to said second bus, each of said service modules providing a networking interface,

said bus master further comprising:

a) a transmission output to said first bus that transmits egress information in fixed size portions to any of said service modules;

b) a reception input from said second bus that receives ingress information in fixed size portions from any of said service modules;

c) an egress first-in-first-out (FIFO) buffer that ~~en~~queues words from which said fixed size portions of egress information are comprised, said egress FIFO buffer further comprising:

1) an output from which said fixed size portions of egress information flow to said transmission output;

2) an input at which said fixed size portions of egress information are received, each of said fixed size portions of egress information including, when received at said input, a label that identifies which of said service modules a particular fixed size portion of egress information is to be sent to;

~~3)~~ said fixed sized portions of queued egress information having boundaries made determinable in light of a programmable bits per word size parameter for said egress FIFO buffer~~;~~ and ~~4)~~ a programmable words per fixed portion of egress ~~cell~~ traffic ~~size~~ parameter, ~~wherein,~~ said fixed size of said portions of egress information ~~can be determined~~ being determinable from said egress FIFO bits per word size and said words per fixed portion of egress ~~cell~~ traffic ~~size~~ parameters; and,

d) an ingress first-in-first-out (FIFO) buffer that ~~en~~queues words from which said fixed size portions of ingress information are comprised, said ingress FIFO buffer further comprising:

1) an output from which said fixed size portions of ingress information flow;

2) an input to which said fixed size portions of ingress information flow from said reception input, each of said fixed size portions of ingress information including, when received at said reception input, a label that identifies which of said

service modules a particular fixed size portion of ingress information is being sent from;

~~3)~~ said fixed sized portions of queued ingress information having boundaries made determinable in light of ~~a~~ programmable bits per word size~~;~~ parameter for said ingress FIFO buffer and ~~4)~~ a programmable words per fixed portion of ingress ~~cell~~ traffic ~~size~~ parameter, ~~wherein~~ said fixed size of said portions of egress information ~~can be determined~~ being determinable from said ingress FIFO bits per word size and said words per fixed size portion of ingress ~~cell~~ traffic ~~size~~ parameters.

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51. (previously presented) The apparatus of claim 50 wherein one of said service modules can be used to provide Frame Relay service.

52. (previously presented) The apparatus of claim 51 wherein said one of said service modules has a T1 networking interface.

53. (previously presented) The apparatus of claim 50 wherein one of said service modules can be used to provide ATM service.

54. (previously presented) The apparatus of claim 53 wherein said one of said service modules has a T1 networking interface.

55. (previously presented) The apparatus of claim 50 wherein said fixed size of said portions of egress information is the same as said fixed size of said portions of ingress information.

56. (currently amended) The apparatus of claim 55 wherein said fixed size can further comprises 56 bytes.

57. (currently amended) The apparatus of claim 50 ~~wherein said egress FIFO buffer~~ further ~~comprises~~ comprising a first counter that counts the number of words that have been stored into said egress FIFO buffer at said egress FIFO buffer input.

58. (currently amended) The apparatus of claim 57 ~~wherein said egress FIFO buffer~~ further ~~comprises~~ comprising a first reset value to which said first counter is set if said first counter reaches said words per fixed portion of egress ~~cell~~ traffic parametersize.

59. (currently amended) The apparatus of claim 57 ~~wherein said egress FIFO buffer~~ further ~~comprises~~ comprising a second counter that counts the number of words that have been removed from said egress FIFO buffer at said egress FIFO buffer output.

60. (currently amended) The apparatus of claim 59 ~~wherein said egress FIFO buffer~~ further ~~comprises~~ comprising a second reset value to which said second counter is set if said second counter reaches said words per fixed portion of egress ~~cell~~ traffic parmetersize.

61. (currently amended) The apparatus of claim 59 ~~wherein said egress FIFO buffer~~ further ~~comprises~~ comprising a third counter and a fourth counter that each:

1) increment in value if said first counter reaches said words per fixed portion of egress ~~cell~~ traffic parameter~~size~~; and

2) decrement in value if said second counter reaches said words per fixed portion of egress ~~cell~~ traffic parameter ~~size~~.

62. (previously presented) The apparatus of claim 61 wherein said third counter is within the domain of a first clock that times the removal of words from said egress FIFO buffer and wherein said fourth counter is within the domain of a second clock that times the storing of words into said egress FIFO buffer.

63. (currently amended) The apparatus of claim 50 ~~wherein said ingress FIFO buffer~~ further ~~comprises~~ comprising a first counter that counts the number of words that have been stored into said ingress FIFO buffer at said ingress FIFO buffer input.

64. (currently amended) The apparatus of claim 63 ~~wherein said ingress FIFO buffer~~ further ~~comprises~~ comprising a first reset value to which said first counter is set if said first counter reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~.

65. (currently amended) The apparatus of claim 63 ~~wherein said ingress FIFO buffer~~ further ~~comprises~~ comprising a second counter that counts the number of words that have been removed from said ingress FIFO buffer at said ingress FIFO buffer output.

66. (currently amended) The apparatus of claim 65 ~~wherein said ingress FIFO buffer~~ further ~~comprises~~ comprising a second reset value to which said

second counter is set if said second counter reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~.

67. (currently amended) The apparatus of claim 65 ~~wherein said ingress FIFO buffer~~ further ~~comprises~~ comprising a third counter and a fourth counter that each:

1) increment in value if said first counter reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~; and

2) decrement in value if said second counter reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~.

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68. (previously presented) The apparatus of claim 67 wherein said third counter is within the domain of a first clock that times the storing of words into said ingress FIFO buffer and wherein said fourth counter is within the domain of a second clock that times the removal of words from said ingress FIFO buffer.

69. (previously presented) A method, comprising:

programming a bits per word size parameter for an egress first-in-first-out (FIFO) buffer and programming a words per fixed portion of egress ~~cell~~ traffic ~~size~~ parameter for said egress FIFO buffer;

programming a bits per word size parameter for an ingress first-in-first-out (FIFO) buffer and programming a words per fixed portion of ingress ~~cell~~ traffic ~~size~~ parameter for said ingress FIFO buffer;

sending fixed size portions of egress ~~information~~ traffic from said egress FIFO buffer over a first bus to any of a plurality of service modules that are coupled to said first bus, ~~wherein~~ each of said fixed size portions of egress traffic further comprising a label that identifies which service module a particular fixed size portion of egress traffic is sent to;

identifying a boundary of a ~~said~~ fixed size ~~of said~~ portions of egress ~~data~~ traffic ~~can be determined from said egress FIFO's~~ within said egress FIFO buffer based upon said programmed bits per word size parameter for said egress FIFO and said programmed words per fixed portion of egress ~~cell~~ traffic ~~size~~ parameter~~,~~ ~~each of said fixed size portions of egress information further comprising a label that identifies which service module a particular fixed size portion of egress information is sent to~~; and

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sending fixed size portions of ingress ~~information~~ traffic from any of said plurality of service modules over a second bus to said ingress FIFO buffer, ~~wherein~~, each of said fixed size portions of ingress traffic further comprising a label that identifies from which service module a particular fixed size portion of ingress traffic was sent;

identifying a boundary of a ~~said~~ fixed size ~~of said~~ portions of ingress ~~data~~ traffic ~~can be determined from~~ within said ingress FIFO buffer based upon said ~~ingress FIFO's~~ programmed bits per word size parameter for said ingress FIFO and said programmed words per fixed size portion of ingress ~~cell~~ traffic ~~size~~ parameter~~, each of said fixed size portions of ingress information further comprising a label that identifies from which service module a particular fixed size portion of ingress information was sent~~.

70. (currently amended) The method of claim 69 wherein said fixed size of said portions of egress ~~information~~ traffic is the same as said fixed size of said portions of ingress ~~information~~ traffic.

71. (currently amended) The method of claim 70 wherein said fixed size ~~further~~ can comprise~~s~~ 56 bytes.

72. (previously presented) The method of claim 69 further comprising counting, with a first count value, the number of words that have been stored into said egress FIFO buffer.

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73. (currently amended) The method of claim 72 further comprising resetting said first count value to a first reset value if said first count value reaches said word~~s~~ per fixed portion of egress ~~cell~~ traffic parameter ~~size~~.

74. (previously presented) The method of claim 72 further comprising counting, with a second count value, the number of words that have been removed from said egress FIFO buffer.

75. (currently amended) The method of claim 74 further comprising resetting said second count value to a second reset value if said second count value reaches said word~~s~~ per fixed portion of egress ~~cell~~ traffic parameter ~~size~~.

76. (currently amended) The method of claim 74 further comprising counting with a third count value and counting with a fourth count value, said counting with a third and fourth count values further comprising:

1) incrementing said third and fourth count values if said first count value reaches said words per fixed portion of egress ~~cell~~ traffic parameter ~~size~~; and

2) decrementing said third and fourth count values if said second count value reaches said words per fixed portion of egress ~~cell~~ traffic parameter ~~size~~.

77. (previously presented) The method of claim 76 wherein said counting with a third count value is timed with a first clock that times the removal of words from said egress FIFO buffer and wherein said counting with a fourth count value is timed with a second clock that times the storing of words into said egress FIFO buffer.

78. (previously presented) The method of claim 69 further comprising counting, with a first count value, the number of words that have been stored into said ingress FIFO buffer.

79. (currently amended) The method of claim 78 further comprising resetting said first count value to a first reset value if said first count value reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~.

80. (previously presented) The method of claim 78 further comprising counting, with a second count value, the number of words that have been removed from said ingress FIFO buffer.

81. (currently amended) The method of claim 80 further comprising resetting said second count value to a second reset value if said second count value reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~.

82. (currently amended) The method of claim 80 further comprising counting with a third count value and counting with a fourth count value, said counting with a third and fourth count values further comprising:

1) incrementing said third and fourth count values if said first count value reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~; and

2) decrementing said third and fourth count values if said second count values reaches said words per fixed portion of ingress ~~cell~~ traffic parameter ~~size~~.

83. (previously presented) The method of claim 82 wherein said counting with a third count value is timed with a first clock that times the storing of words into said ingress FIFO buffer and wherein said counting with a fourth count value is timed with a second clock that times the removal of words from said ingress FIFO buffer.

84. (currently amended) An apparatus, comprising:

means for programming a bits per word size parameter for an egress first-in-first-out (FIFO) buffer and programming a words per fixed portion of egress ~~cell~~ traffic ~~size~~ parameter for said egress FIFO buffer;

means for programming a bits per word size parameter for an ingress first-in-first-out (FIFO) buffer and programming a words per fixed portion of ingress ~~cell~~ traffic ~~size~~ parameter for said ingress FIFO buffer;

means for sending fixed size portions of egress ~~information~~ traffic from said egress FIFO buffer over a first bus to any of a plurality of service modules that are coupled to said first bus~~, wherein~~ said fixed size portions of egress traffic

further comprising a label that identifies which service module a particular fixed size portion of egress traffic is sent to;

means for identifying said fixed size ~~of said~~ portions of egress ~~data~~ traffic within said egress FIFO buffer based upon said ~~can be determined from said egress FIFO's~~ programmed bits per word size parameter for said egress FIFO and said programmed words per fixed size portion of egress ~~cell~~ traffic ~~size~~ parameter~~, each of said fixed size portions of egress information further comprising a label that identifies which service module a particular fixed size portion of egress information is sent to~~; and,

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means for sending fixed size portions of ingress ~~information~~ traffic from any of said plurality of service modules over a second bus to said ingress FIFO buffer, each of said fixed size portions of ingress traffic further comprising a label that identifies from which service module a particular fixed size portion of ingress traffic was sent;

~~wherein~~ means for identifying said fixed size ~~of said~~ portions of ingress ~~data~~ traffic within said ingress FIFO buffer based upon said ~~can be determined from said ingress FIFO's~~ programmed bits per word size parameter for said ingress FIFO and said programmed words per fixed size portion of egress ~~cell~~ traffic ~~size~~ parameter~~, each of said fixed size portions of ingress information further comprising a label that identifies from which service module a particular fixed size portion of ingress information was sent~~.

85. (currently amended) The apparatus of claim 84 wherein said fixed size of said portions of egress ~~information~~ traffic is the same as said fixed size of said portions of ingress ~~information~~ traffic.

86. (currently amended) The apparatus of claim 85 wherein said fixed size ~~further~~ can comprises ~~s~~ 56 bytes.

87. (previously presented) The apparatus of claim 84 further comprising means for counting, with a first count value, the number of words that have been stored into said egress FIFO buffer.

88. (currently amended) The apparatus of claim 87 further comprising means for resetting said first count value to a first reset value if said first count value reaches said words per fixed size portion of egress ~~cell~~ traffic parameter ~~size~~.

89. (previously presented) The apparatus of claim 87 further comprising means for counting, with a second count value, the number of words that have been removed from said egress FIFO buffer.

90. (currently amended) The apparatus of claim 89 further comprising means for resetting said second count value to a second reset value if said second count value reaches said words per fixed size portion of egress ~~cell~~ traffic parameter ~~size~~.

91. (currently amended) The apparatus of claim 89 further comprising means for counting with a third count value and counting with a fourth count

value, said means for counting with a third and fourth count values further comprising:

1) means for incrementing said third and fourth count values if said first count value reaches said words per fixed size portion of egress ~~cell~~ traffic parameter ~~size~~; and

2) means for decrementing said third and fourth count values if said second count value reaches said words per fixed size portion of egress ~~cell~~ traffic parameter ~~size~~.

92. (previously presented) The apparatus of claim 91 wherein said counting with a third count value is timed with a first clock that times the removal of words from said egress FIFO buffer and wherein said counting with a fourth count value is timed with a second clock that times the storing of words into said egress FIFO buffer.

93. (previously presented) The apparatus of claim 84 further comprising means for counting, with a first count value, the number of words that have been stored into said ingress FIFO buffer.

94. (currently amended) The apparatus of claim 93 further comprising means for resetting said first count value to a first reset value if said first count value reaches said words per fixed size portion of ingress ~~cell~~ traffic parameter ~~size~~.

95. (previously presented) The apparatus of claim 93 further comprising means for counting, with a second count value, the number of words that have been removed from said ingress FIFO buffer.

96. (currently amended) The apparatus of claim 95 further comprising means for resetting said second count value to a second reset value if said second count value reaches said words per fixed size portion of ingress ~~cell~~ traffic parameter ~~size~~.

97. (currently amended) The apparatus of claim 95 further comprising means for counting with a third count value and counting with a fourth count value, said means for counting with a third and fourth count values further comprising:

1) means for incrementing said third and fourth count values if said first count value reaches said words per fixed size portion of ingress ~~cell~~ traffic parameter ~~size~~; and,

2) means for decrementing said third and fourth count values if said second count values reaches said words per fixed size portion of ingress ~~cell~~ traffic parameter ~~size~~.

98. (previously presented) The apparatus of claim 97 wherein said counting with a third count value is timed with a first clock that times the storing of words into said ingress FIFO buffer and wherein said counting with a fourth count value is timed with a second clock that times the removal of words from said ingress FIFO buffer.

99. (new) A method, comprising:

programming a bits per word size parameter for an egress first-in-first-out (FIFO) buffer and programming a words per fixed size portion of egress traffic parameter for said egress FIFO buffer;

programming a bits per word size parameter for an ingress first-in-first-out (FIFO) buffer and programming a words per fixed size portion of ingress traffic parameter for said ingress FIFO buffer;

receiving at said egress FIFO buffer fixed size portions of egress traffic sent from a switch;

identifying a boundary of a fixed size portion of egress traffic within said egress FIFO buffer based upon said programmed bits per word size parameter for said egress FIFO and said words per fixed size portion of egress traffic parameter;

sending fixed size portions of ingress traffic from said ingress FIFO buffer to said switch; and

identifying a boundary of a fixed size portion of ingress traffic within said ingress FIFO buffer based upon said programmed bits per word size parameter for said ingress FIFO and said programmed words per fixed size portion of ingress traffic parameter.